response. 69.2% in the RT + CON group had a complete response. 90.9% of the CRT + CON group and 63.6% of the CRT group had a complete response (statistically significant at $p = 0.031$). No significant correlation was found between RT + CON and CRT ($p = 0.313$).

Interpretation: This study shows that hypoxia and cell proliferation increase with tumour volume. The response to radiation increased significantly in the group who received CON as part of treatment. This finding shows that CON has an important role in breaking the cycle that causes radio-chemoresistance. Therefore, CON in combination with RT can be considered for those who are not eligible for or refuse chemotherapy.

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P58 EXPRESSION OF NISCHARIN IN HUMAN BREAST-CANCER TISSUE

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Background: Nischarin, a novel protein, was originally identified as an α5β1 interacting protein and has been shown to inhibit cell motility through inhibition of the Rac/PAK/LIMK/Coffinin pathway. Nischarin blocks tumour-cell migration and invasion in breast-cancer cell line MCF7.

Methods: To further study the role of Nischarin in breast cancer, we evaluated expression levels by immunohistochemistry in 36 breast-cancer and 20 normal-breast tissue sections. We also looked at the expression pattern using the NCBI-GEO database.

Findings: Nischarin expression was positive in 27.8% (10/36) breast-cancer tissues, which was significantly lower than the percent expressing the protein in normal breast tissues (55%, 11/20; $p < 0.05$). Furthermore, expression of Nischarin in breast cancer was associated with oestrogen-receptor (ER) status. Nischarin was expressed in 60% (6/10) ER-positive tumour tissues, whereas in ER-negative tumour tissues, positivity of Nischarin was only 15.4% (4/26; $p < 0.05$). Concordant with immunostaining, NCBI-GEO analysis confirmed that Nischarin was poorly expressed in HER2-positive and/or ER-negative highly invasive breast cancer, and was expressed at higher levels in other cancerous cells and in normal breast tissue.

Interpretation: These data suggest that Nischarin has an important role in breast-cancer progression, and it might be a potential tumour suppressor. The relationship between Nischarin and breast cancer, and the mechanism, are currently being studied.

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